

**ABSTRACT**

Optical pumping unit comprising a first pump source adapted to emit a first pump radiation at wavelength  $\lambda_{p1}$ ; a second pump source adapted to emit a second pump radiation at wavelength  $\lambda_{p2}$ , with wavelength  $\lambda_{p2}$  different from wavelength  $\lambda_{p1}$ ; and a common coupling section comprising a first and a second port connected to the first and second pump source for respectively receiving the first and the second pump radiation; a third port for a signal radiation at wavelength  $\lambda_s$ ; a fourth port, wherein the coupling section is adapted to combine, in the fourth port, the signal radiation and the first and second pump radiation through a reversal of the direction of propagation of the first pump radiation from the first port to the fourth port.